

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)	
)	
Authorizing Permissive Use of the “Next)	GN Docket No. 16-142
Generation” Broadcast Television Standard)	
)	
)	

**REPLY COMMENTS OF THE
CONSUMER TECHNOLOGY ASSOCIATION**

The Consumer Technology Association (“CTA”)¹ respectfully submits these reply comments in response to comments filed on the above-captioned Notice of Proposed Rulemaking (“*Notice*”), which proposes to authorize the permissive use of Next Generation broadcast television.² This proceeding gives the Commission an important opportunity to unleash innovation, not by requiring a particular type of equipment, but by facilitating voluntary industry adoption of a new technology in response to consumer demand. There is broad support for the joint industry proposal to transition to the ATSC 3.0 standard on a voluntary basis.³ In

¹ The Consumer Technology Association (“CTA”)TM is the trade association representing the \$292 billion U.S. consumer technology industry, which supports more than 15 million U.S. jobs. More than 2,200 companies – 80 percent are small businesses and startups; others are among the world’s best known brands – enjoy the benefits of CTA membership including policy advocacy, market research, technical education, industry promotion, standards development and the fostering of business and strategic relationships. CTA also owns and produces CES[®] – the world’s gathering place for all who thrive on the business of consumer technologies. Profits from CES are reinvested into CTA’s industry services.

² *Authorizing Permissive Use of the “Next Generation” Broadcast Television Standard*, Notice of Proposed Rulemaking, 32 FCC Rcd 1670 (2017) (“*Notice*”).

All references to “Comments” in this reply are to comments filed in GN Docket No. 16-142 on or about May 9, 2017.

³ CTA continues to fully support the joint petition for rulemaking and the coalition’s initial comments. Given the critical importance of preserving flexibility to innovate in the design and production of consumer technology products, including those with TV tuners, CTA writes

particular, the record clearly demonstrates the position of all industry sectors and advocacy groups that the Commission need not and should not adopt any mandatory tuner requirement with respect to ATSC 3.0.

CTA's members are successfully bringing new video products to market, rapidly developing and deploying new hardware and software to anticipate and meet consumers' desires for consuming video programming on all kinds of screens. Hardware mandates such as a tuner requirement risk diverting resources by artificially directing investment. Such mandates also could cause companies to either refrain from launching new technologies or to be forced to return to the FCC to seek waivers at the next wave of a technology transition.

I. THE CONSUMER TECHNOLOGY INDUSTRY IS ADVANCING INNOVATIVE VIDEO PLAYERS WITHOUT COMMISSION INTERVENTION

CTA has been a full partner in developing the ATSC 3.0 standard, which always was envisioned as a voluntary standard.⁴ As explained in the joint petition that prompted this docket,⁵ with the Commission's authorization of ATSC 3.0 broadcast transmission, the transition to Next Generation TV "will be accomplished in an entirely voluntary manner by the broadcasting and consumer electronics industries working in tandem to extend this new service

separately to urge the Commission not to deviate from the voluntary nature of the ATSC 3.0 transition with respect to tuners.

⁴ See, e.g., Comments of LG Electronics, Inc. at 9 ("LG Comments"). As a general matter, the Advanced Television Systems Committee, Inc. ("ATSC") – to which CTA belongs – develops "voluntary standards for digital television." ATSC, About ATSC, <http://atsc.org/about-us/about-atsc> (last visited June 4, 2017).

⁵ Joint Petition for Rulemaking of America's Public Television Stations, the AWARN Alliance, the Consumer Technology Association, and the National Association of Broadcasters, GN Docket No. 16-142 (Apr. 13, 2016).

to broadcasters’ communities, without mandatory timelines for either broadcasters or receiver manufacturers to adopt the new standard.”⁶

Voluntary, consensus-based, global standards have been proven to be best for innovation because they promote interoperability and provide a clearer path along which video technologies can evolve.⁷ Indeed, voluntary standards enable cost-effective introduction of new technologies while helping drive competition that powers the U.S. economy. Given the relationship between interoperability and reliability, a voluntary standards process will better calibrate end-user expectations and lead to more useful, less expensive technologies than any government mandate could effect.⁸

CTA’s Video Systems Technology and Standards Committee has been actively engaged in work on ATSC 3.0. Its working group on “Receivers for Next Generation Television” is developing a series of Recommended Practices that mirror the suite of ATSC 3.0 standards. In addition, CTA’s TV Data Systems Subcommittee recently authorized a new project related to receiving the next-generation closed captioning delivered by the ATSC 3.0 transmission standard.⁹

The consumer technology industry strives constantly to be ahead of consumer tastes and to meet voracious consumer demand, particularly for equipment and software that enables viewing of video programming. For example, CTA proudly honored many video technologies

⁶ *Id.* at iv.

⁷ See, e.g., Comments of CTA, GN Docket No. 16-46, at 5 (May 24, 2017).

⁸ Comments of CTA, Docket No. 160509408-6408-01 (RIN 0660-XC02), at 3 (June 16, 2016), https://www.ntia.doc.gov/files/ntia/publications/cta_comments_re_ntia_itu_iot_standards_rfc-061616.pdf.

⁹ CTA Press Release, *CTA Launches New Standards Projects on VoIP Systems, Encryption, Security and Closed Captions at Spring Forum* (Apr. 7, 2016), <https://cta.tech/News/Press-Releases/2016/April/CTA-Launches-New-Standards-Projects-on-VoIP-System.aspx>. This new closed captioning standard initiative is just one example of CTA’s ongoing commitment to ensure all consumers, including individuals with disabilities, can access consumer technology.

across a range of categories earlier this year at CES 2017. These innovations allow consumers to experience video programming reaching an astounding 300” with projector/speaker combinations, in 4K Ultra HD, high dynamic range, and even “smartglasses.”¹⁰ CES 2017 also featured televisions with advanced accessibility features among its “Tech for a Better World” honorees.¹¹ The dramatic advances that characterize the consumer technology industry have been enabled largely through permission-less innovation.¹² A similarly voluntary approach for ATSC 3.0 unquestionably will be “pro-consumer.”¹³

All stakeholders continue to work diligently to develop and implement the various components of the greater ATSC 3.0 standard.¹⁴ As just one example, in the time since the Joint

¹⁰ The honorees in the High Performance Home Audio-Video category included Chengdu XGimi Technology Co., Ltd.’s XGIMI H1, which “turns any surface into a 300-inch screen with unparalleled brightness and clarity” and includes a speaker, and Southern Telecom Inc.’s Indoor Projector Bluetooth Speaker. CES 2017 Innovation Awards, <http://www.ces.tech/Events-Experiences/Innovation-Awards-Program/Honorees.aspx> (select “High Performance Home Audio-Video” from the drop-down menu) (last visited June 4, 2017); *see also id.* selecting “Video Display” and “Tablets, E-Readers and Mobile Computing”.

¹¹ *Id.* (select “Tech For A Better World” from the drop-down menu) (last visited June 4, 2017).

¹² *See, e.g., Oversight of the Federal Commc’ns Comm’n: Hearing before the S. Comm. on Commerce, Science, and Transp.*, 115th Cong., Testimony of FCC Chairman Ajit Pai at 3 (Mar. 8, 2017), https://apps.fcc.gov/edocs_public/attachmatch/DOC-343814A1.pdf (favoring the path of permissionless innovation and consumer choice in a “fiercely competitive market”); Comm’r Ajit Pai, Remarks on Receiving the Inaugural Herbert Brownell Award at the Tech Elders’ First Annual Herbert Brownell Dinner (Dec. 3, 2015), https://apps.fcc.gov/edocs_public/attachmatch/DOC-336719A1.pdf (observing that permissionless innovation “spurred the internet’s explosive growth”).

¹³ *Oversight of the Federal Commc’ns Comm’n: Hearing before the S. Comm. on Commerce, Science, and Transp.*, 114th Cong., Testimony of FCC Comm’r Ajit Pai at 4 (Sept. 15, 2016), https://apps.fcc.gov/edocs_public/attachmatch/DOC-341267A1.pdf; *see also* Comm’r Michael O’Rielly, Keynote Address at the Annual Broadcast Television Conference of the Advanced Television Systems Committee at 2 (May 11, 2016), https://apps.fcc.gov/edocs_public/attachmatch/DOC-339330A1.pdf (“O’Rielly May 2016 Address”) (urging the Commission to “open the door as much as possible to future permissionless innovation” with respect to broadcast television standards).

¹⁴ *See* Rich Chernock, ATSC 3.0: What Will the “Standard” Look Like?, <http://atsc.org/newsletter/atsc-3-0-what-will-the-standard-look-like/> (last visited June 4, 2017)

Petition was filed, ATSC finalized many other aspects of the standard, most notably the ATSC 3.0 Physical Layer Protocol (ATSC A/322).¹⁵ A/322 defines the RF/Transmission of the physical layer waveform and will allow simultaneous ATSC 3.0 mobile, handheld, and indoor reception in a single RF channel.¹⁶ While CTA does not seek a requirement to implement A/322 (again, there is no reason to diverge from the intended minimalist, voluntary approach), we recommend that the Commission recognize that A/322 is an important aspect of ATSC 3.0 that will further facilitate the transition to Next Generation broadcasting. The Commission should encourage this advanced modulation method for television services to be displayed on mobile, portable, and fixed devices; such recognition will give device manufacturers more certainty and instill consumer confidence in new ATSC 3.0-enabled television receivers, thus further supporting the voluntary transition.

II. AN ATSC 3.0 TUNER MANDATE IS UNNECESSARY AND WOULD BE COUNTERPRODUCTIVE

As Commissioner O’Rielly has explained, “No tech mandates are necessary” to transition to ATSC 3.0.¹⁷ A tuner mandate, either now or at any time in the future, would be counterproductive. Setting aside the larger question of whether a technology mandate is ever necessary, it certainly is not necessary here, where all relevant sectors are properly incentivized

(observing that the ATSC 3.0 specification is actually a “‘suite’ of standards”); *Standards Progress Big Headway On More ATSC 3.0 Elements* (Mar. 2017), <http://atsc.org/newsletter/standards-progress-big-headway-atsc-3-0-elements> (noting that in the past two months, “six more elements achieved member approval, bringing the number of Final Standards to 12”).

¹⁵ ATSC Press Release, *ATSC 3.0 Physical Layer Standard Approved* (Sept. 8, 2016), <http://atsc.org/news-release/atsc-3-0-physical-layer-standard-approved>.

¹⁶ ATSC, ATSC Standard: Physical Layer Protocol (A/322) (Feb. 9, 2017), <http://atsc.org/wp-content/uploads/2016/10/A322-2017-Physical-Layer-Protocol.pdf>; *Notice* at n.26.

¹⁷ O’Rielly May 2016 Address at 2; *see also Notice* ¶¶ 71-72 (tentatively concluding that a tuner mandate is not necessary at this time, but seeking comment on a future mandate).

to transition and have a proven history of meeting consumer demand. This transition is unlike the DTV transition (which was mandated by Congress), for example, and a voluntary path is more appropriate. Moreover, a technology mandate for manufacturers would undermine the inter-industry cooperation that has characterized the development of ATSC 3.0, subjecting equipment manufacturers to a disproportionate burden and threat of enforcement not borne by other sectors.

The record demonstrates that heavy-handed government regulation in the form of tuner mandates is wholly unnecessary and will only frustrate consumers, particularly those in markets where ATSC 3.0 signals are not yet available. Rather, consumer demand should drive tuners inclusion and adoption.¹⁸ As one technology company explained, “Next Generation TV will succeed because consumers will recognize its tremendous benefits, creating demand for receivers capable of receiving an ATSC 3.0 signal.”¹⁹ A mandate “could stifle the innovation,” which is the opposite of the Commission’s goal in this proceeding.²⁰ Mandating ATSC 3.0 in mobile devices would cost consumers more money and potentially negatively impact the consumer experience.²¹ On the other hand, because industry intends to use a voluntary, international

¹⁸ See Comments of Consumers Union, Public Knowledge, and New America’s Open Technology Institute at 9-10 (supporting the Commission’s tentative conclusion that a tuner mandate is not necessary and that consumer demand will “better inform receiver manufacturers and broadcasters as to whether the televisions of the future should include the equivalent of an ATSC 3.0 tuner”) (“Consumer Union, *et al* Comments”); Comments of CTIA at 6 (“There is no reason for a government mandate requiring parties to deploy a device that is capable of receiving ATSC 3.0 signals, as equipment vendors will implement these capabilities should consumers demand this functionality.”); Comments of T-Mobile at 8-10 (predicting that if consumers want access to ATSC 3.0 signals in wireless devices, “the marketplace will likely respond to that need”) (“T-Mobile Comments”).

¹⁹ Comments of GatesAir Inc. at 10. Software updates may also be sufficient to allow consumers “to access certain new ATSC 3.0 features.” Comments of Verance Corporation at 3.

²⁰ Comments of AWARN Alliance at 8.

²¹ See T-Mobile Comments at 9.

standard, the consumer technology industry will be able to leverage equipment being developed for the South Korean transition to ATSC 3.0.²²

There is no need for the Commission to revisit its ATSC 1.0 tuner requirement at this time, as ATSC 1.0 broadcasting will continue for many years in parallel with the launch of new ATSC 3.0 services. Using the South Korean transition as a guidepost, new Next-Gen television products will likely have dual 3.0-1.0 tuners for many years. CTA continues to support this voluntary approach to the transition.

Further, any technology mandate, including one for HDMI, is inappropriate and will likely lead to a slew of waiver requests.²³ Consumers demand a wide variety of inputs and interfaces, including using many devices that continue to support legacy inputs and interfaces, and the consumer technology industry is meeting that demand. In particular, an HDMI port is unnecessary as “[a] consumer would be hard-pressed to purchase a new television today and in the future that did not have an HDMI port.”²⁴ Additional Commission rules mandating technology consumers can readily access is not beneficial, but expands regulatory underbrush like that which the current Commission is striving to remove from its rules.

CTA’s members are providing a wide range of devices and will continue to do so in the future. Commissioner O’Rielly rightly observed that ATSC 3.0 is unlikely to be the “last broadcast television standard ever created.”²⁵ As evidenced by years of analog tuner waivers,

²² See LG Comments at 10.

²³ See Notice ¶ 72 (seeking comment on whether the Commission should require TV receivers to include HDMI ports).

²⁴ Consumer Union, *et al* Comments at 10-11; see Notice ¶ 72 (seeking comment on the percentage, if any, of TV receiver manufactured today that do not have an HDMI port).

²⁵ O’Rielly May 2016 Address at 2.

locking manufacturers into a standard that will become outdated merely adds more paperwork and slows innovation in response to changing technologies and consumer tastes.²⁶

III. CONCLUSION

A voluntary approach to the ATSC 3.0 transition is best for all stakeholders and for the U.S. economy and the public. The Commission should eschew heavy-handed regulation and adopt this common-sense approach.

Respectfully submitted,

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²⁶ See, e.g., *EchoStar Technologies L.L.C. and Hauppauge Computer Works, Inc. Petitions for Waiver of Section 15.117(b) of the Commission's Rules*, Memorandum Opinion and Order, 31 FCC Rcd 12770 (MB 2016) (allowing EchoStar and Hauppauge to import, market, and sell innovative digital tuner products which do not include the ability to analog broadcast signals); *EchoStar Technologies L.L.C. Petition for Waiver of Section 15.117(b) of the Commission's Rules*, Memorandum Opinion and Order, 28 FCC Rcd 14000 (MB 2013); *TiVo, Inc. Petition for Waiver of Sections 15.117(b), 15.118(b), 15.123(b)(1), 15.123(c), and 15.123(d) of the Commission's Rules*, Memorandum Opinion and Order, 28 FCC Rcd 12181 (MB 2013).